

A. generating a time division multiplexed digital data stream comprising a repeating pattern of digital data slots, each said repetitive pattern having at least (i) one slot in one fixed location in said repetitive pattern, (ii) a second slot in a second fixed location with respect to said one slot, and (iii) a third slot in a third fixed location with respect to said one slot; and

B. in each said repetitive pattern, inserting: (i) a portion of video channel digital data into at least said one slot, (ii) first audio channel data in synchronization with said portion of video channel digital data into at least said second slot, and (iii) second audio channel data in synchronization with said portion of video channel digital data into at least said third slot;

whereby the video channel may be demultiplexed in synchronization with each said channel of digital audio.

27. The multiplexing method of claim 26 wherein each said digital data slot has the same data length.

28. The multiplexing method of claim 26 wherein the first audio channel data comprises a first language and the second audio channel data comprises a second language.

29. The multiplexing method of claim 27 wherein the first audio channel data comprises a first language and the second audio channel data comprises a second language.

30. The multiplexing method of claim 26 wherein the method also includes as step C: in at least a fourth slot in a fourth fixed location in each said repetitive pattern, inserting slot mapping information for at least said one slot, second slot, and third slot.

31. The multiplexing method of claim 29 wherein the method also includes as step C: in at least a fourth slot in a fourth fixed location in each said repetitive pattern, inserting slot mapping information for at least said one slot, second slot, and third slot.

32. A method of demultiplexing from a multiplexed data stream a digital video channel and at least one channel of digital audio, the method comprising the steps of:

A. receiving a time division multiplexed digital data stream comprising a repeating pattern of digital data slots, each said repetitive pattern having at least (i) one slot in one fixed location in one fixed location in said repetitive pattern, (ii) a second slot in a second fixed location with respect to the one slot, and (iii) a third slot in a third fixed location with respect to the one slot;

B. from each said repetitive pattern, withdrawing: (i) a portion of video channel digital data from at least said one slot; and (ii) at least one among: (a) first audio channel data associated with said portion of video channel digital data from at least said second slot, and (b) second audio channel data associated with said portion of video channel digital data from at least said third slot.

33. The demultiplexing method of claim 7 wherein each of said digital data slots has the same data length.

34. The demultiplexing method of claim 7 wherein said first audio channel data includes first language audio information and said second audio channel data includes second language audio information.

35. The demultiplexing method of claim 33 wherein said first audio channel data includes first language audio information and said second audio channel data includes second language audio information.

36. The demultiplexing method of claim 32 wherein the method also includes as step C: in at least a fourth slot in a fourth fixed location with respect to the one slot, inserting slot mapping information for at least said one slot, second slot, and third slot.

37. The demultiplexing method of claim 35 wherein the method also includes as step C: in at least a fourth slot in a fourth fixed location with respect to the one slot, inserting slot mapping information for at least said one slot, second slot, and third slot.

38. A method of multiplexing a digital video channel with a plurality of channels of digital audio, each said channel of audio having a preferred synchronization with said digital video channel, the method comprising the steps of:

A. generating a time division multiplexed data stream including a plurality of repeating digital data frames each including a plurality of sequential digital data slots of fixed length, each of said plurality of digital data slots including at least one slot in one fixed location in each said frame, another slot in a another fixed location in each said frame, and an additional slot in an additional fixed location in each said frame;

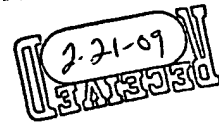
B. in each said digital data frame, inserting a portion of digital video channel data into said one slot;

C. in each said digital data frame, inserting into said another slot a portion of digital audio from a first digital audio channel; and

D. in each said digital frame, inserting into said additional slot a segment of digital audio from a second digital audio channel;

whereby the portion of digital audio and segment of digital audio are multiplexed, and may thereby be demultiplexed, in synchronization with an associated portion of digital video channel data.

39. The multiplexing method of claim 38 wherein each said digital data slot has the same data length.

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40. The multiplexing method of claim 38 wherein the first digital audio channel includes a first language and the second digital audio channel includes a second language.
41. The multiplexing method of claim 39 wherein the first digital audio channel includes a first language and the second digital audio channel includes a second language.
42. The multiplexing method of claim 38 wherein each said digital frame also includes at least one header slot in a fixed location with respect to the other slots in the frame and the method also includes as step E: inserting into said header slot mapping information about at least said one slot, another slot, and additional slot.
43. The multiplexing method of claim 41 wherein each said digital frame also includes at least one header slot in a fixed location with respect to the other slots in the frame and the method also includes as step E: inserting into said header slot mapping information about at least said one slot, another slot, and additional slot.
44. A method of demultiplexing from multiplexed data stream a digital video channel and at least one among plurality of channels of digital audio, each said channel of audio having a preferred synchronization with said digital video channel, the method comprising the steps of:
- A. receiving a time division multiplexed data stream including a plurality of repeating digital data frames each including a plurality of sequential digital data slots of fixed length, each of said plurality of digital data slots including at least one slot in one fixed location in each said frame, another slot in a another fixed location in each said frame, and an additional slot in an additional fixed location in each said frame;
  - B. from each said digital data frame, recovering a portion of digital video channel data from said one slot;
  - C. and at least one among:
    - i. from each said digital data frame, recovering from said another slot a portion of digital audio from a first digital audio channel; and

ii. from each said digital data frame, recovering from said additional slot a segment of digital audio from a second digital audio channel;  
whereby the portion of digital audio or segment of digital audio can be demultiplexed in said preferred synchronization with an associated portion of digital video channel data.

45. The demultiplexing method of claim 44 wherein each said digital data slot has the same data length.

46. The demultiplexing method of claim 44 wherein said first digital audio channel includes a first language associated with said video channel and said second digital audio channel includes a second language associated with said video channel.

47. The demultiplexing method of claim 45 wherein said first digital audio channel includes a first language associated with said video channel and said second digital audio channel includes a second language associated with said video channel.

48. The demultiplexing method claim 44 wherein each said digital data frame also includes at least one header slot in a fixed location with respect to the other slots in the frame and the method also includes as step E: inserting into said header slot mapping information about at least said one slot, another slot, and additional slot.

49. The demultiplexing method of claim 47 wherein each said digital frame also includes at least one header slot in a fixed location with respect to the other slots in the frame and the method also includes as step E: inserting into said header slot mapping information about at least said one slot, another slot, and additional slot.

50. A method of demultiplexing a time division multiplexed digital data stream including at least one encoded digital video channel and at least a first and a second encoded digital audio channel synchronized with said digital video channel, the method comprising the steps of:

- A. receiving said digital data stream having a series of frames of data, each of said frames of data including a series of data slots, each of said series of slots having at least one slot comprising a portion of said encoded digital video channel, at least a second slot having a fixed location with respect to the first slot and comprising a segment of said first encoded digital audio channel, and at least a third slot having a fixed location with respect to the first slot and comprising a section of said second encoded digital audio channel;
- B. recovering said portion of encoded digital video from said first slot in each of said frames in said digital data stream;
- C. recovering said segment of said encoded first channel digital audio from said second slot in each of said frames in said digital data stream;
- D. recovering said section of said encoded second channel digital audio from said third slot in each of said frames in said digital data stream; and
- E. thereby making available for output the first encoded digital audio channel and the second encoded digital audio channel synchronized with the encoded digital video channel.

51. The demultiplexing method of claim 50 in which each of said data slots has the same data length.

52. The demultiplexing method of claim 50 in which the encoded first digital audio channel comprises a first language and the encoded second digital audio channel comprises a second language.

53. The demultiplexing method of claim 51 in which the encoded first digital audio channel comprises a first language and the encoded second digital audio channel comprises a second language.

54. The demultiplexing method of claim 50 in which each of said frames also includes a mapping slot and wherein the method also includes in step A: recovering from

said mapping slot mapping information regarding said first slot, second slot, and third slot.

55. The demultiplexing method of claim 53 in which each of said frames also includes a mapping slot and wherein the method also includes in step A: recovering from said mapping slot mapping information regarding said first slot, second slot, and third slot.

56. A method of demultiplexing a time division multiplexed digital data stream including a data frame series and a data slot series in each said frame, said data frame series collectively including at least one encoded digital video channel and at least a first and a second encoded digital audio channel, the method comprising the steps of:

A. recovering from within each data frame in said data frame series: (i) a portion of said encoded digital video channel from one data slot in said data frame; (ii) a segment of said encoded first encoded digital audio channel from at least a second data slot having first fixed spacing from said one slot; and (iii) a section of said encoded second digital audio channel from at least a third data slot having a second fixed spacing from said one slot; and

B. reassembling and making available as output said encoded digital video channel in synchronization with first encoded digital audio channel and second encoded digital audio channel.

57. The demultiplexing method of claim 56 wherein each said data slot has the same data length.

58. The demultiplexing method of claim 56 wherein the first encoded digital audio channel comprises a first language and the second encoded digital audio channel comprises a second language.